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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,440	05/23/2001	Masahiro Takagi	208915US2RD	8894

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ALEXANDRIA, VA 22314

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/862,440

Applicant(s)

TAKAGI ET AL.

Examiner

Abdulahkim Nobahar

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/16/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. This communication is in response to applicants' amendment received on March 16, 2005.
2. Amendments to claims 1, 10 and 19-22 are acknowledged and that do not introduce any new matter.
3. Applicant's arguments, see remarks, filed on March 16, 2005, with respect to the rejections of claims 1-22 under 35 USC § 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of claims amendments as follows.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caronni (6,507,908 B1) in view of Inoue et al (6,170,057 B1; hereinafter Inoue).

Caronni discloses a secure system for transferring packets between a mobile terminal and a host terminal located in a network via a gateway (see abstract; col. 4, lines 26-37; Fig. 2).

Inoue discloses a method for encryption and authentication of packets transmitted to and from a mobile terminal to another computer in a computer network (see abstract and Fig. 1).

Regarding claims 1, 10 and 19-22, Caronni discloses a gateway that forwards the data packets on to higher network layers includes a packet analysis device (corresponding to the recited a security information management unit), which monitors the addresses of inbound and outbound packets to a mobile machine outside of a secure network having a security association (col. 5, lines 57-67; col. 6, lines 27-55). The analysis device extracts keys from packet headers to determines the corresponding secure IP addresses related to the cryptography of the packets (corresponding to the recited to manage information regarding a security association set up between to communicating terminals) (see col. 3, lines 40-62; col. 6, lines 30-36; col. 6, lines 52-60; col. 7, lines 59-67). Caronni also discloses that the gateway includes a unit for encrypting outgoing packets received from a device coupled to a secure network and decrypting incoming packets received from a device coupled to an insecure network using associated encryption keys that maybe maintained in a database and transmitting the packets to the destination terminal (see col. 8, lines 20-35 and Fig. 3, device 303). Caronni further discloses that the gateway has a function of

forwarding the data packets to the higher network protocol layer based on the packet IP header examination and after decrypting the packet (corresponding to the recited data relay unit perform the data relaying at the transport or upper layer based on the decrypted data) (see col. 1, lines 30-40; col. 3, lines 50-62; col. 4, lines 17-25; col. 7, lines 46-58). The data packets are transmitted containing information needed for authentication (see col. 6, lines 21-26; col. 7, lines 28-37).

Caronni, however, does not expressly disclose that re-encrypting the decrypted packets obtained from decrypting the received packets before sending them to a destination device.

Inoue discloses a gateway with a data packet relaying function based on the encryption information (corresponding to the recited according to the received data) that decrypts the received encrypted data packets from a device coupled to a network and re-encrypts the same data packets before transmitting to another device coupled to a different network (see col. 2, lines 42-49; col. 5, lines 30-42). Inoue also discloses that the gateway has an authentication unit that authenticates the received data packets based on authentication code attached to the packet (see col. 5, lines 43-50; col. 7, lines 55-65).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the re-encryption operation of the decrypted data packets in the gateway as taught in Inoue in the system of Caronni because it would protect the data packets while being transmitted to a device coupled to an insecure network (Inoue, col. 1, lines 47-64).

Regarding claims 2 and 11, Caronni discloses that the gateway is located between a mobile computer and a computer in a wired network (see Fig. 2, where mobile unites 204 and 214 communicates with the computers in the network 107 through gateway 102).

Regarding claims 3 and 12, Caronni discloses the packet analysis device of the gateway extracts the keys (corresponding to the recited security association) from a field in the packet header provided by the sending computer (see col. 2, lines 40-50; col. 9, lines 19-49).

Regarding claims 4-6 and 13-15, Caronni discloses that the gateway may obtain the key information (corresponding to the recited security association) for cryptography operation on the transmitting packets from a database, which may be located on a server (see col. 9, lines 19-49; Fig. 3, 307).

Regarding claims 7, 8, 16 and 17, Caronni does not expressly disclose a mechanism for transferring information regarding the security association to a gateway belong to a network when a mobile terminals moves to an area covered by the network (i.e., visited network).

Inoue discloses that when a mobile computer moves from one network such as the home network to another network the gateway of the first network controls the security information regarding to the encryption process of the packets and transfers the

security information to the gateway of the visited network (see Figs. 2 and 6; col. 2, line 63-col. 3, line 23; col. 8, lines 33-67).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a mechanism (i.e., a handoff unit) in the gateway of the home network for handing over necessary security information to a next gateway as taught in Inoue in the system of Caronni when a mobile terminal moves to a visited network because it would improve the efficiency of encryption/decryption process of the transmitting packets (Inoue, col. 3, lines 23-49).

Regarding claims 9 and 18, Inoue discloses that the gateway in the home network of the mobile computer encapsulates the received IP packet and transmits to the gateway in the visited network (col. 6, lines 43-52). Inoue further discloses a mechanism to determine (corresponding to the recited judge) whether the security policy of the visited network is the same as the home network (see col. 2, line 63-col. 3, line 22). If the security policies are different the encryption process of the packets are performed at the mobile computer not by the gateway of the visited network. This means that packet relaying is occurred at the gateway of the visited network.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

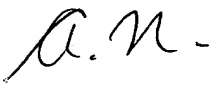
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abdulahkim Nobahar
Examiner
Art Unit 2132

AN 
May 20, 2005


GILBERTO BARRON JR.
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